

Aero Design Ltd.**Work Order Control Sheet**Work Order#: 2017-180 Date Opened: 03 November 2017 Title: FabricationAircraft OEM: Eurocopter Aircraft Model: AS350/355 Product Type: Cargo Basket Body + Lid Product Model: Long Quantity: 5/5**Work Order Contents**

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification (Original)
Time Sheet (R&D)
Notes

Initial or N/A

JC
N/A
JC
JC
JC
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Drawing List

Drawing #	Rev #	Description	Initial or N/A
78411	3	Body Assembly	JC
78412	2	Lid Assembly	JC
70405	4	Lid Walkway Mod	JC
84262	2	Basket Handle Prov.	JC
84263	0	Lid Handle Provisions	JC

Traveller**Component Completion**

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

5/5
N/A
N/A
N/A

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Tracking Tags (White) Completed
Parts Placed in Stores for Distribution

Initial or N/A

N/A
N/A
JC
N/A
N/A
JC

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

JC
N/A
N/A

Work performed by:

Print: J. FRANCISSign: J. FrancisSCA: AD08Date: 29 MAR 2018

ICC / Dual Inspection performed by:

Print: J. CLARKESign: J. ClarkeSCA: AD02Date: 29 MAR 2018

Work Order closed by:

Print: J. CLARKESign: J. ClarkeSCA: AD02Date: 16 APR 2018

Approved Manufacturing Facility 73-04

Form 20 D 03

Rev. Original 23 Sep 2014



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
V8A 0G3, 604-483-AERO (2376)

Quantity:	1	
PN:	76423-07	
Aircraft:	Airbus	Model: AS350
Description:	Cargo Basket Hoop, Long	
Supplier:	Aero Design Ltd.	
Color:	N/A	
WO#:	2016-47	PO# N/A



Aero Design Ltd.

9888 A Malaspina Rd., Powell River, BC
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Quantity: 1

PN: 76423-07

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Description: Cargo Basket Hoop, Long

Supplier: Aero Design Ltd.

Color: N/A

WO#: 2016-47

PO# N/A



Aero Design Ltd.

9888 A Malaspina Rd. Powell River, BC, V8A 0G3

Phone: 604-483-2376 Fax: 604-483-2372 E-mail: info@aerodesign.ca

AMF 73-04

Nomenclature: SPACER No. of pieces: 27

Manufacturer: AERO DESIGN LTD.

Part No.: 49216-01 Serial/Batch No.: P017050

TTSN: N/A TSO: N/A Rem.: N/A

Work Order No.: 2017-210

Remaining Tasks to be Performed: NONE

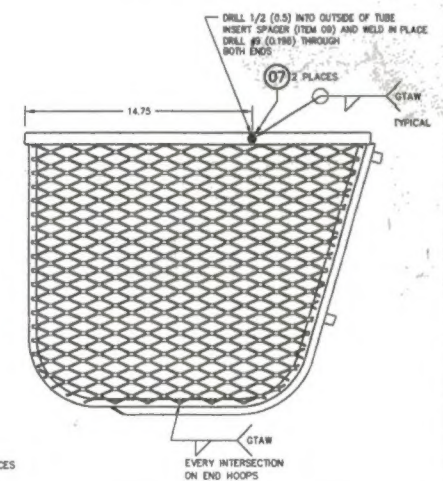
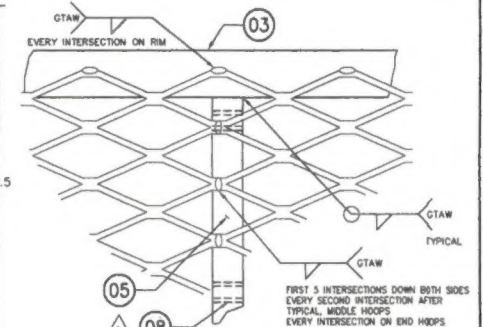
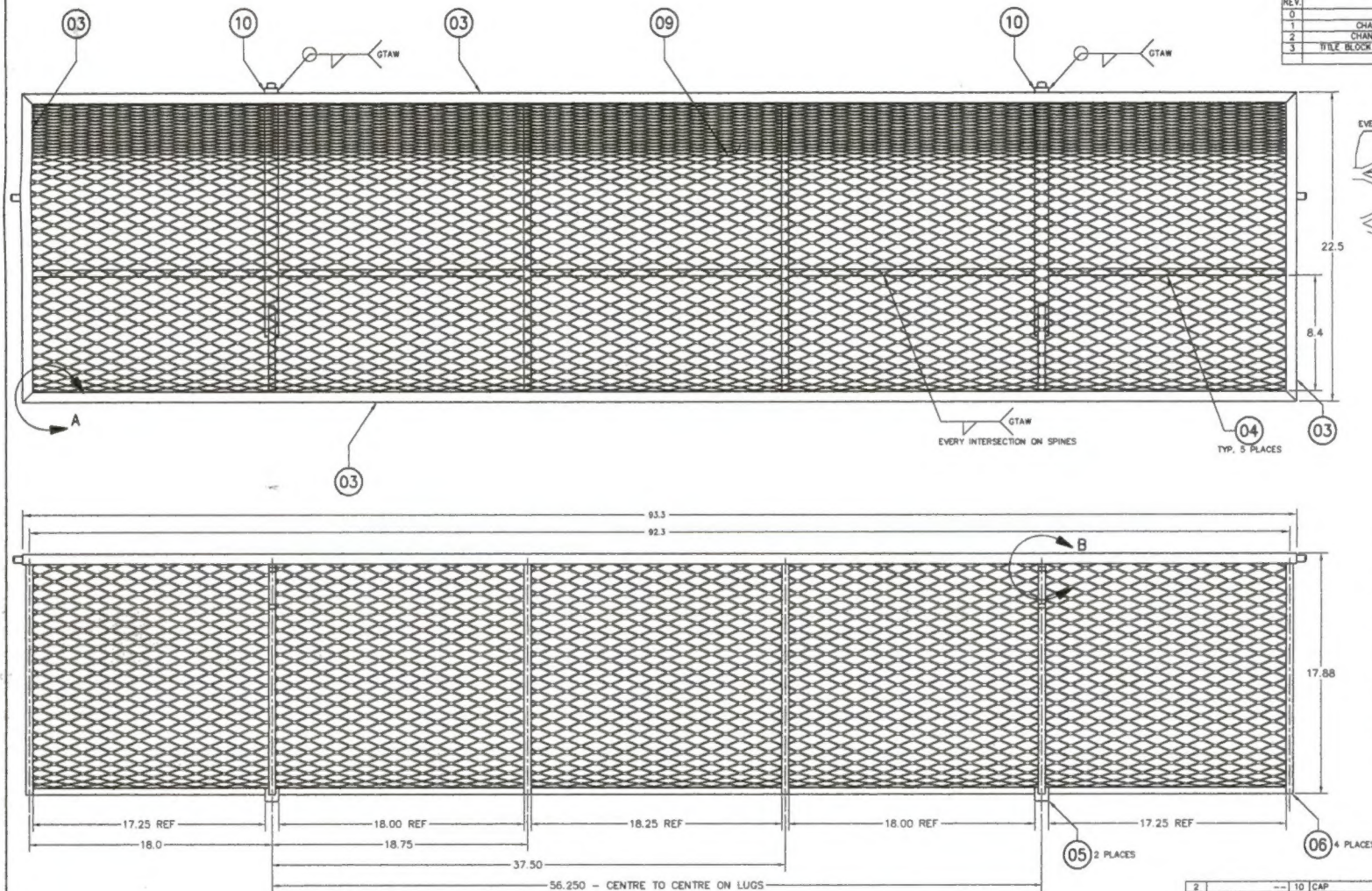
Signature: JH cel.

Date: DEC 7, 2017 Lic. No. / SCA AD02

Serviceable

2017-180

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE	RR	25 JAN 08
1	CHANGED ATTACH HOOP FROM 76423-01 TO 76423-07	RR	05 MAR 09
2	CHANGED HANDLE BRACKET, REMOVED ALTERNATE BASKET	BUC	28 JAN 10
3	WELD BLOCK UPDATED, WELDING ROD UPDATED, REFERENCE DAMS ADDED, SPACER (07) MOVED, CAP (10) ADDED	BUC	11/07/2014



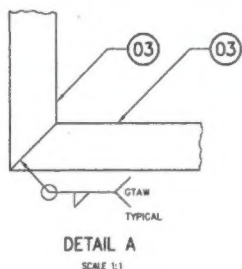
01 BASKET BODY ASSEMBLY

NOTES:

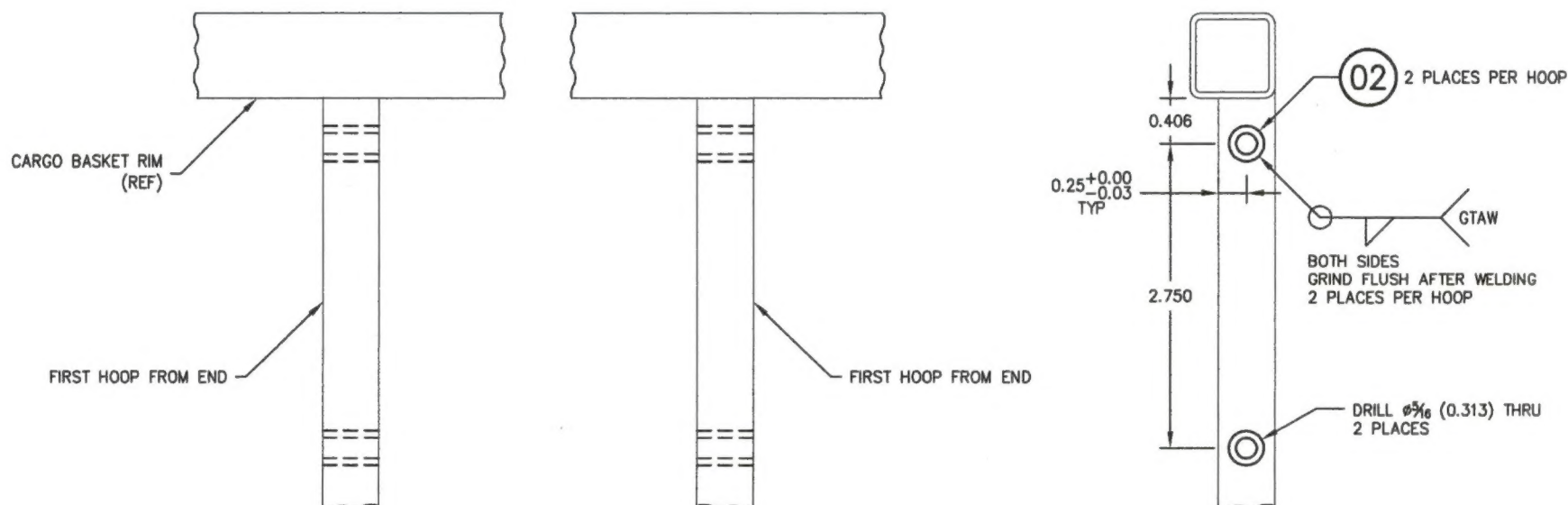
1. REMOVE ALL BURRS AND BREAK SHARP EDGES
2. PRIOR TO WELDING, DRILL #30 (0.125) VENT HOLES IN ASSEMBLY FOR VENTING OF WELD GASES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
3. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2885C.
4. 4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
5. STAINLESS AND 4130 STEEL: WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT.
6. INSTALL ITEM 8 (BASKET HANDLE PROMIONS ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 84262 BEFORE WELDING HOOPS TO RIM.
7. FINISH: THOROUGHLY CLEAN AND POWDER COAT BASKET ASSEMBLY.

QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL/NOTE	MATERIAL SPEC	STOCK SIZE
2	--	10	CAP	MILD STEEL	AISI 1010/1020	0.050 SHEET
A/R	3/4 - 16F	09	MESH	MILD STEEL	COMMERCIAL	
1	84262-01	08	BASKET HANDLE PROMIONS ASSEMBLY			
2	49215-01	07	SPACER			
4	76423-01	05	HOOP			
2	76423-07	05	ATTACHMENT HOOP			
A/R	--	04	SQUARE TUBE	4130 STEEL COND. N	MIL-T-8736	1/2 X 0.035 SQR TUBE
A/R	--	03	SQUARE TUBE	4130 STEEL COND. N	MIL-T-8736	3/4 X 0.035 SQR TUBE
02	78411-01	01	BASKET BODY ASSEMBLY			

APPROVALS	DATE	DATE
DRAWN: R. RATHWELL	25 JAN 08	
CHECKED: E. BURGOIN		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1		
AERO DESIGN LTD. 8808A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 250.483.8376 www.aerodesign.ca		
EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE CARGO BASKET BASKET BODY ASSEMBLY (LONG)		
SCALE 1:4	DWG SIZE	DWG NO.
SHEET 1 OF 1	A1	78411
		3



THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREON.			
REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE - CREATED FROM 36262	BJC	03/11/2009
1	CHANGE LOCATION OF BUSHINGS	BJC	29/09/2011
2	UPDATED TITLE BLOCK, MOVE LD PROVISIONS TO 84263	BJC	14/02/2014



01 BASKET HANDLE PROVISIONS ASSEMBLY PROVISIONS TO BE INSTALLED IN HOOPS BEFORE ASSEMBLY TO BASKET RIM

NOTES:

1. REMOVE ALL BURRS AND SHARP EDGES.
2. WELDING TO BE COMPLETED BY GTA METHOD TO AMS2685C USING ROD CONFORMING TO ER70S-2 OR EQUIVALENT.

QTY	PART NO.	ITEM	DESCRIPTION
4	84272-01	02	BUSHING
	84262-01	01	BASKET HANDLE PROV. ASSY
LIST OF MATERIALS			

APPROVALS	DATE
DRAWN: JEFF CLARKE	03 NOV 2009
CHECKED: E. BURGAIN	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ±0.010 ±1/2°
X.XX ±0.03
X.X ±0.1



AERO DESIGN LTD.

9888A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 804.483.2376 www.aerodesign.ca

HELICOPTER CARGO BASKET
BASKET HANDLE PROVISIONS ASSEMBLY

SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A3	84262	2

CARGO BASKET BODY FABRICATION - COMMON

2017-180

General

These instructions apply to all cargo basket body assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69811, Revision 3 – Standard Low Mounted Basket

94511, Revision 0 – Extra-Wide Low Mounted Basket

94611, Revision 0 – Extra-Wide Low Mounted Ski Basket

76611, Revision 0 – High Mounted Ski Basket

Options 70404, Revision 2 – Front end cutout – 698

70411, Revision 0 – Front end cutout – 945/946

Eurocopter AS350/AS355 – left or right

77611, Revision 1 – Short Basket

76411, Revision 3 – Medium Basket (left or right)

→ 78411, Revision 2 – Long Basket

94011, Revision 0 – Extra Large (ski) Basket

Options 70406, Revision 2 – Front end cutout – 764/776/784/940

Robinson R44 – left or right

90611, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80211, Revision 0 – Short Basket

80311, Revision 0 – Medium Basket

81111, Revision 0 – Long Basket

Options 70406, Revision 2 – Front end cutout – 802/803/811

Bell 429 – right or left

95911, Revision 0 – Standard Basket

Bell Medium – left or right

75111, Revision 0 – Standard Basket

95511, Revision 0 – Extra Large (ski) Basket

Options 70407, Revision 1 – Front end cutout – 751

704, Revision – Front end cutout – 955

MD600

82811, Revision 0 – Standard Basket

Options – Applicable to all models

70403, Revision 5 – Auxiliary Latch

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

Work Order: 2017-180

Date Open: 03 NOV 2017

1. Rim Assembly – Basket Body

- Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig.
 - 1 or 2 lid prop bushing holes in short tube – refer to drawing
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.
- For extra large baskets – drill #30 (0.129) vent holes to vent stringer tubes into rims.
- 94611 (206L/407 XL ski) only – drill for 4 threaded bushings before assembling rim.

2. Weld Rim Assembly.

- Record welding rod PO on attached material list.
- 94611 (206L/407 XL ski) only – weld 4 threaded bushings into inboard rim tube.

3. Inspection

- Rim for complete welds

4. Frame assembly – body

- General
 - Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
- Grind corner welds from step 2 on rim to allow hoops to sit flat.
- Pull required hoops from stock - standard, attachment, handle.
 - If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
 - Ensure vent hole is located at centre of tube to vent spine tubes.
- Assemble hoops with attachment lug locating jig and hoop spacing jig.
 - Ensure correct order and orientation of hoops. Refer to drawing.
 - Attachment lugs are on inboard side.
 - Handle bracket bushings are on outboard side, second hoop from both ends. May be on attachment hoops.
 - Run 3/8-24 tap into attachment lugs to ensure clear threads.
 - Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
 - Attach inboard and outboard hoop spacing jigs to all hoops using 1" C-clamps. Raise jigs approximately 2" off table to allow room to weld around hoops.
 - Attach bottom (spine) jig to all hoops using 1" C-clamps along the centre line of the basket. Ensure jig is straight prior to tightening all clamps.
- Cut $\frac{1}{2}$ " x 0.035 material to fit spine jig.
- Cut $\frac{1}{2}$ " x 0.035 material for strut to fit from lower inboard attachment to upper outboard rim.
 - Refer to applicable drawing for position, not required on some baskets.
- Option: Cut $\frac{1}{2}$ " x 0.035 material for front end cutout. Record material PO on attached material list.
- 90611 (R44) only: Cut $\frac{1}{2}$ " x 0.035 material to fit front end structure. Record material PO on attached material list.
- Drill vent holes into attachment hoop and/or rim to vent strut(s) and front end cutout.

CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

- j. Record hoop WOs and material POs on attached material list.
- k. Remove writing on tubes with acetone and scotch bright.
- l. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
- m. Align hoops to rim in accordance with drawing. General positions:
 - i. Extra large baskets
 - 1. inboard side of hoops (attachment side) aligns to OUTSIDE of rim
 - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
 - 3. forward and aft hoops align to INSIDE of rim
 - ii. All other baskets
 - 1. inboard side of hoops (attachment side) aligns to INSIDE of rim
 - 2. outboard side of hoops (handle side) aligns to INSIDE of rim
 - 3. forward and aft hoops align to INSIDE of rim, except R44

5. TIG weld frame to rim assembly.

- a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
- b. Strut tubes and front end cutout (see step 4.f. and g.) must be welded in place after the hoops are welded to the rim. Jig(s) must be in place prior to welding strut tubes.
- c. Robinson R44 (90611) requires fitting and welding of forward end after remainder of basket frame is welded. Use jig to support front hoop.
- d. Record welding rod PO on attached material list.

6. Inspection

- a. Frame assembly for complete welds.

7. Mesh assembly.

- a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- b. Cut mesh to size for body.
- c. Remove surface rust with scotch-brite.
- d. Bend body mesh – use table with bend markings on top. Lock wheels on table.
 - i. For extra wide baskets only –
 - 1. Set $\frac{3}{4}$ " angle along edge of table under mesh sheet. Set 1.5" square tube on top of mesh aligned with angle on edge of table. Clamp in place with 6" C-clamps.
 - 2. Bend upper edge of sheet just past a cell intersection to make a flange 2.5" - 3.25" wide. Closer to 2.5" is preferred, full cell intersection on flange side at bend is required.
 - 3. Bend down by hand as far as possible, then use a hammer to flatten the bend tight against the angle on the edge of the table.
 - ii. Using markings on table, align sheet to indicated edge.
 - iii. Using markings on table, align 3" tube to required position and clamp tube in place.
 - iv. Bend mesh by hand tightly over tube along length of tube.
 - v. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
 - vi. Bend mesh by hand tightly over tube along length of tube.
- e. Install attachment lug jig onto basket frame.

CARGO BASKET BODY FABRICATION - COMMON**Complete**
(initial or SCA #)

- f. Ensure end struts are welded in basket frame if required by the drawing.
- g. Insert mesh into basket.
 - i. General
 - 1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
 - 2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
 - 3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.
 - 4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
 - 5. When placing clecos, locate them on the side of the rib furthest away from the joint in the mesh. The cleco should grip the strand closest to the top of the basket with the jaws pointing towards the top of the basket.
 - 6. Place one cleco per joint when going around curves.
 - 7. Before presenting basket to the welder, remove any clamps (C-clamps or cleco) on the vertical side of the basket and partially around the curve as they interfere with the welder's jig.
 - ii. Extra large baskets only – seat corner of mesh with flange into inboard upper corner of frame. Use C-clamps on edge of flange as required to maintain tight fit.
 - iii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops. For regular size baskets, edge of mesh should sit approximately half way up rim tube.
 - iv. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - v. Clamp mesh to spine in at least 1 place per section.
 - vi. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - vii. Trim upper outboard edge of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require ½ to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
 - viii. Trim ends to land on hoops, at mesh intersections if possible.
- h. Cut mesh to fit ends. Record material PO on attached material list.
 - i. Remove surface rust with scotch-brite.
 - ii. Ensure mesh is cut at intersections where possible.
 - iii. Bend top edge of mesh 1/8"-3/16" down at 45 degrees
 - iv. Cut for front end cutout if required.

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CARGO BASKET BODY FABRICATION - COMMON**Complete**
(initial or SCA #)

- i. 90611 (R44) only: Cut mesh to fit upper forward end. Record material PO on attached material list.

- i. Remove surface rust with scotch-brite.
- ii. Ensure mesh is cut at intersections where possible.
- iii. Bend top edge of mesh 1/4" down at 60 degrees.
- iv. Fit mesh to front end of basket.

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8. Weld mesh to frame assembly per drawing.

- a. Ensure lug locating jig is in place prior to welding.
- b. General welding requirements for all baskets, MIG welding:
 - i. Every intersection at top edges.
 - ii. Every intersection at ends.
 - iii. First 5 intersections down on hoops, then every second intersection.
 - iv. Every intersection along spine.
 - v. Extra large baskets – every intersection along corner.
 - vi. Every intersection around ends
 - vii. Every intersection along struts (if applicable)
- c. Bend and trim cells bent in to fit mesh as required and weld in position.
- d. Grind high spots off body mesh welds on ends before welding end mesh.
- e. 90611 (R44) only – weld lid prop bushing (step 9) into rim BEFORE welding upper mesh on forward end of basket assembly.
- f. Record welding rod PO on attached material list.

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9. Weld basket components

- a. TIG weld lid prop bushing(s), one or two per drawing.
 - i. Record welding rod PO on attached material list.
 - ii. Record lip prop bushing WO on attached material list.
- b. TIG weld caps to close top of 1" hoops as applicable.
- c. 94611 (Bell206L/407 XL ski) only: cut rim over cross tube gap.
 - i. Cut inboard rim on aft end. Grind flush with hoops.
 - ii. TIG weld caps on open tubes.
 - iii. Record cap material PO on attached material list.
- d. 95911 (Bell 429) only: placard bracket to forward upper corner of basket.
 - i. Record welding rod PO on attached material list.
 - ii. Record placard bracket WO on attached material list.

JF

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10. Clean up

- a. Grind high spots off mesh welds.
- b. Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
- c. ~~Drill #9 through lid prop bushing(s). De-burr hole(s).~~
- d. Remove surface rust with scotch-brite pad.

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11. Final Inspection

To be completed by a different person than the previous steps.

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CARGO BASKET BODY FABRICATION - COMMON

Complete
(initial or SCA #)

- a. Basket body assembly for complete welds, and required minimum mesh weld locations.
- b. Filled vent holes – usually on hoops
- c. Overall condition and conformity to drawing(s).
 - i. Hoops for height.
 - ii. Rim for width and length and alignment.
 - iii. Lid prop lugs in correct ends.
 - iv. Fore/aft strut in hoop if required by drawing.
- d. Material lists complete.
- e. Tag complete basket body assembly in preparation for powder coating.

12. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag basket body assembly and place into stock in preparation for assembly.

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02

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02

Work Order: 2017-180Date Opened: 03 Nov 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Long Basket Body Fabrication

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>5</u>		78411-01	Basket Assembly		
Step 1				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (93.25")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091/17093</u>
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17055</u>
Step 2				<i>Weld Rim Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>16078</u>
Step 3				<i>Inspection - Rim</i>	None	
Step 4				<i>Frame Assembly</i>		
	. 4		76421-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>2017-145</u>
	. 2		76423-01	Attachment hoop (aft)		<u>2016-47 / 2017-181</u>
	. 5		--	1/2" Tube - spine	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>17093</u>
Step 4.g.		70406	70406-01	Option: Front End Cutout		
			70406-03	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>NA</u>
			70406-04	1/2" Tube	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>NA</u>
Step 5				<i>Weld Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>16078</u>
Step 6				<i>Inspection - Frame Assembly</i>	None	
Step 7				<i>Mesh Assembly</i>		
	. 1		--	Mesh (Body - 48" x 92.25")	3/4-16F Expanded Mild Steel sheet	<u>17107</u>
	. 2		--	Mesh (End - 22" x 17")	3/4-16F Expanded Mild Steel sheet	<u>17098/17107</u>
Step 8				<i>Weld Mesh</i>		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	<u>16078</u>

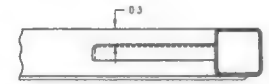
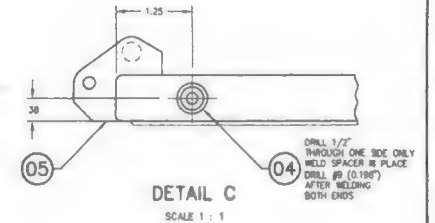
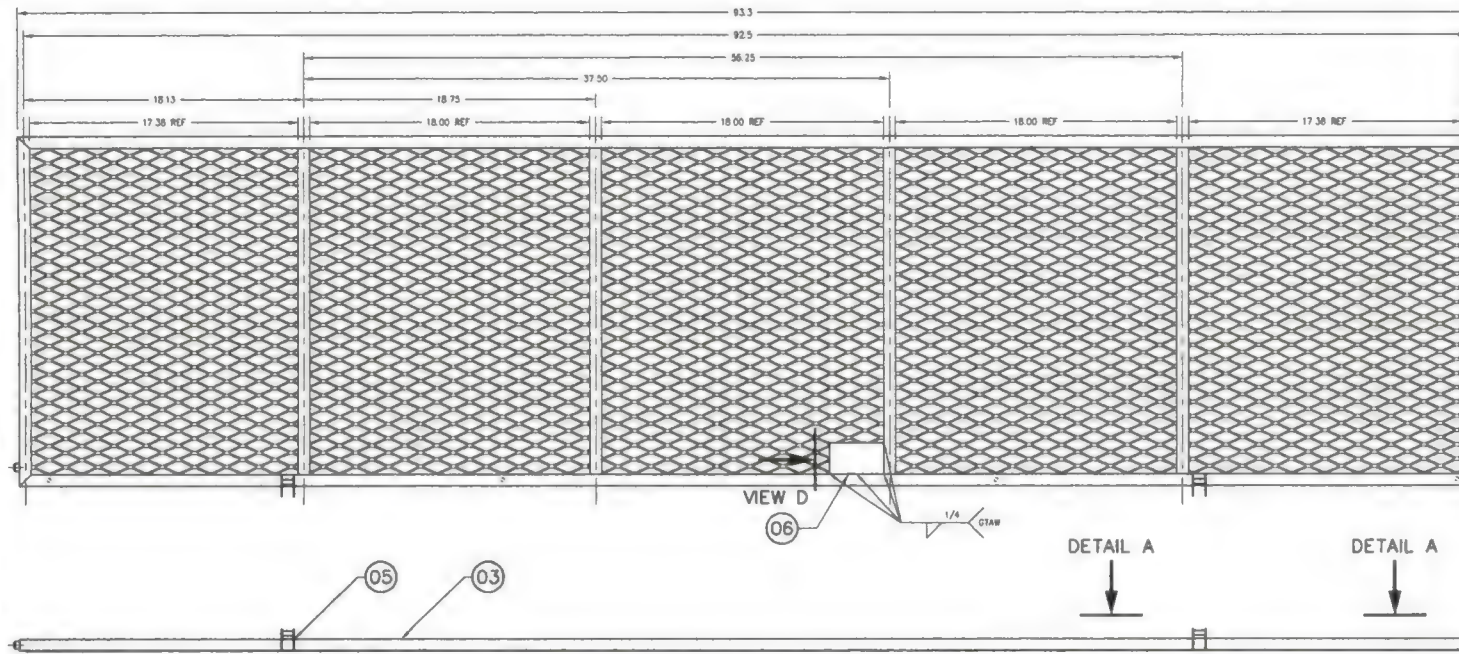
Work Order: 2017-180Date Opened: 03 Nov 2017Material Tracking Sheet
Eurocopter AS350 / AS355
Long Basket Body Fabrication

2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 9				<i>Weld Basket Components</i>		
Step 9.a.	. 2		49215-01	Spacer (Lid prop)	304 Stainless Steel, ½" Dia.	2015-84
	. A/R		--	Welding Rod	ER308L TIG Rod	17066
Step 9.b.	. 2		--	Cap	1018 Mild Steel, 0.032" Sheet	2019
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	16078
Step 10				<i>Clean Up</i>	None	
Step 11				<i>Inspection - Final Assembly</i>	None	
Step 12				Powder Coating		18004 18016 18019 1) (2) (2) Black

2017-180

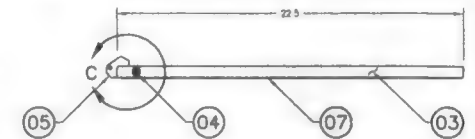
REV	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		
1	CHANGED HANDLE BRACKETS, REMOVE ALTERNATE LID	BUE	28 JAN 10
2	TITLE BLOCK UPDATED, B4262 CHANGED TO B4263, WELDING ROD UPDATED	BUC	10/07/2014
	3 OF WELDS DOWN BRACE TUBES INCREASED, REFERENCE DIMENSIONS ADDED		
	1/4" HOLES FOR BUMPERS ADDED, VIEW D ADDED		



01 BASKET LID ASSEMBLY

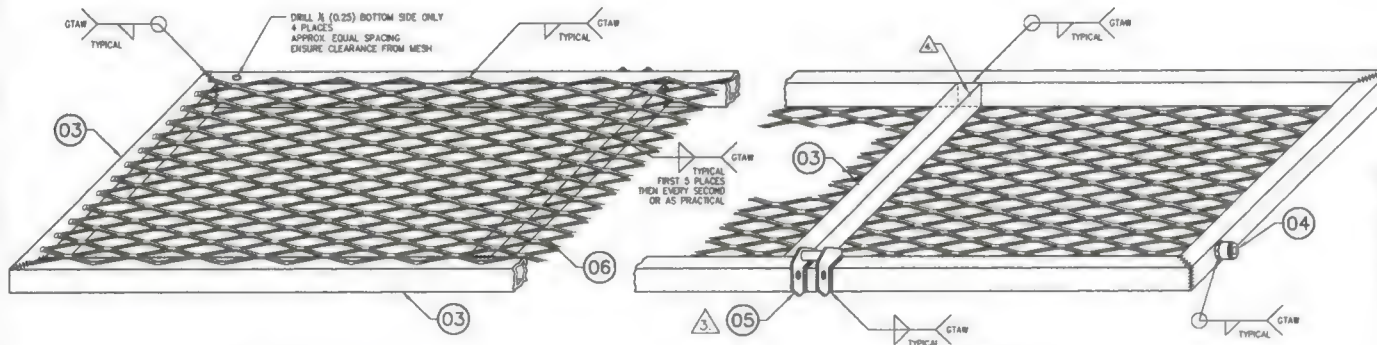
DETAIL B

DETAIL B




NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2685C.
- 4130 AND 1018 STEEL WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
- STAINLESS AND 4130 STEEL WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT.
- INSTALL ITEM 5 (LID HANDLE PROVISIONS ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 84263.
- DRILL #30 (0.125) HOLES IN LONG TUBE MEMBERS AT BRACE LOCATIONS TO VENT WELD GASSES. WHEN ASSEMBLY IS COMPLETE, FILL ALL EXPOSED VENT HOLES WITH ROSETTE WELD.
- FINISH: THOROUGHLY CLEAN AND POWDER COAT LID ASSEMBLY.



DETAIL B
LOOKING AT BOTTOM

DETAIL A
LOOKING AT TOP

A/R	3/4-16F 07 MESH															
1	36204-10 08 PLACARD BRACKET															
1	B4263-01 05 LID HANDLE PROVISIONS ASSEMBLY															
2	49216-01 04 SPACER															
A/R	-- 03 SQUARE TUBE	4130 STEEL COND N	ML-T-0736	3/4 X 0.035 SQR TUBE												
	78412-01 01 BASKET LID ASSEMBLY															
Q1	PART NO	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE										
QTY	LIST OF MATERIALS															
<table><tr><td colspan="2">APPROVALS</td><td>DATE</td></tr><tr><td>DRAWN</td><td>R RATHWELL</td><td>19 FEB 08</td></tr><tr><td>CHECKED</td><td>E BURGIN</td><td></td></tr></table>				APPROVALS		DATE	DRAWN	R RATHWELL	19 FEB 08	CHECKED	E BURGIN		<div><div>AERO DESIGN LTD. 9888A MALASPINA ROAD POWELL RIVER, BC, CANADA, V0A 0G3 TEL. 250 463-3270 www.aerodesign.ca</div></div>			
APPROVALS		DATE														
DRAWN	R RATHWELL	19 FEB 08														
CHECKED	E BURGIN															
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:				EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE CARGO BASKET BASKET LID ASSEMBLY (LONG)												
DECIMALS		ANGLES		DWG. SIZE		DWG NO.										
X.XXX ±0.010		±1/2°		SCALE 1 : 4		REV.										
X.XX ±0.03				SHEET 1 OF 1		A1										
X ±0.1						78412										
						2										



AERO DESIGN LTD.

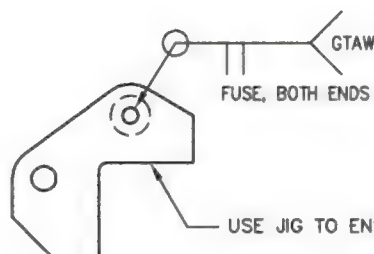
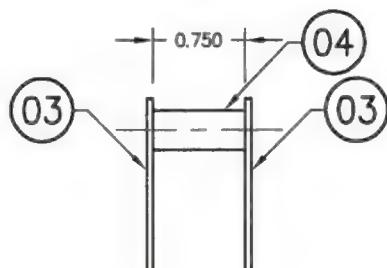
0808A MALASPINA ROAD
POWELL RIVER, BC, CANADA, V8A 0G3
TEL: 604 685.2376 www.aerodesign.ca

EUROCOPTER AS350 & AS355 SERIES
QUICK RELEASE CARGO BASKET
BASKET LID ASSEMBLY (LONG)

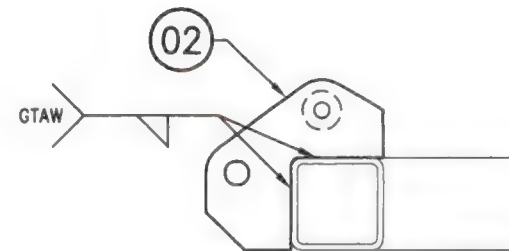
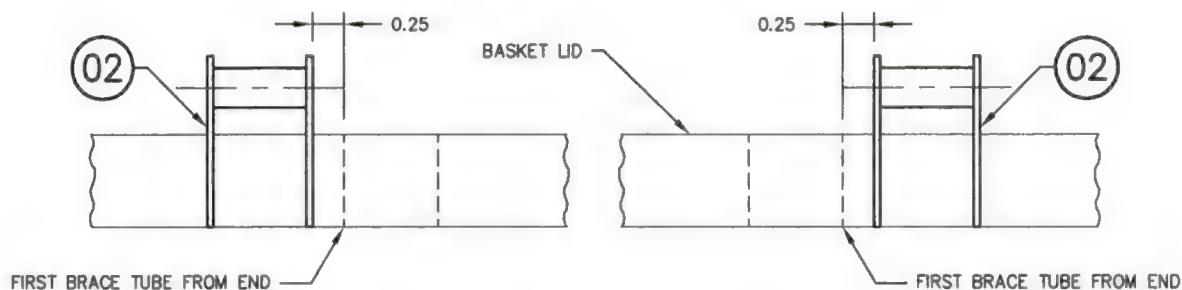
2017-180

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REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE - CREATED FROM 84262 REV. 1	BJC	14/02/2014



02 HANDLE BRACKET ASSEMBLY



01 LID HANDLE PROVISIONS ASSEMBLY

NOTES:

1. REMOVE ALL BURRS AND SHARP EDGES.
2. WELDING TO BE COMPLETED BY GTAW METHOD TO AMS2685C USING ROD CONFORMING TO ER308L OR EQUIVALENT.

1		36275-02	04	SUPPORT
2		36273-01	03	LID BRACKET
	2	84263-02	02	HANDLE BRACKET ASSEMBLY
		84263-01	01	LID HANDLE PROVISIONS ASSY
02	01	PART NO.	ITEM	DESCRIPTION
QTY	QTY	LIST OF MATERIALS		

APPROVALS	DATE
DRAWN: JEFF CLARKE	14 FEB 2014
CHECKED: JASON REKVE	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ±0.010 ±1/2°
X.XX ±0.03
X.X ±0.1



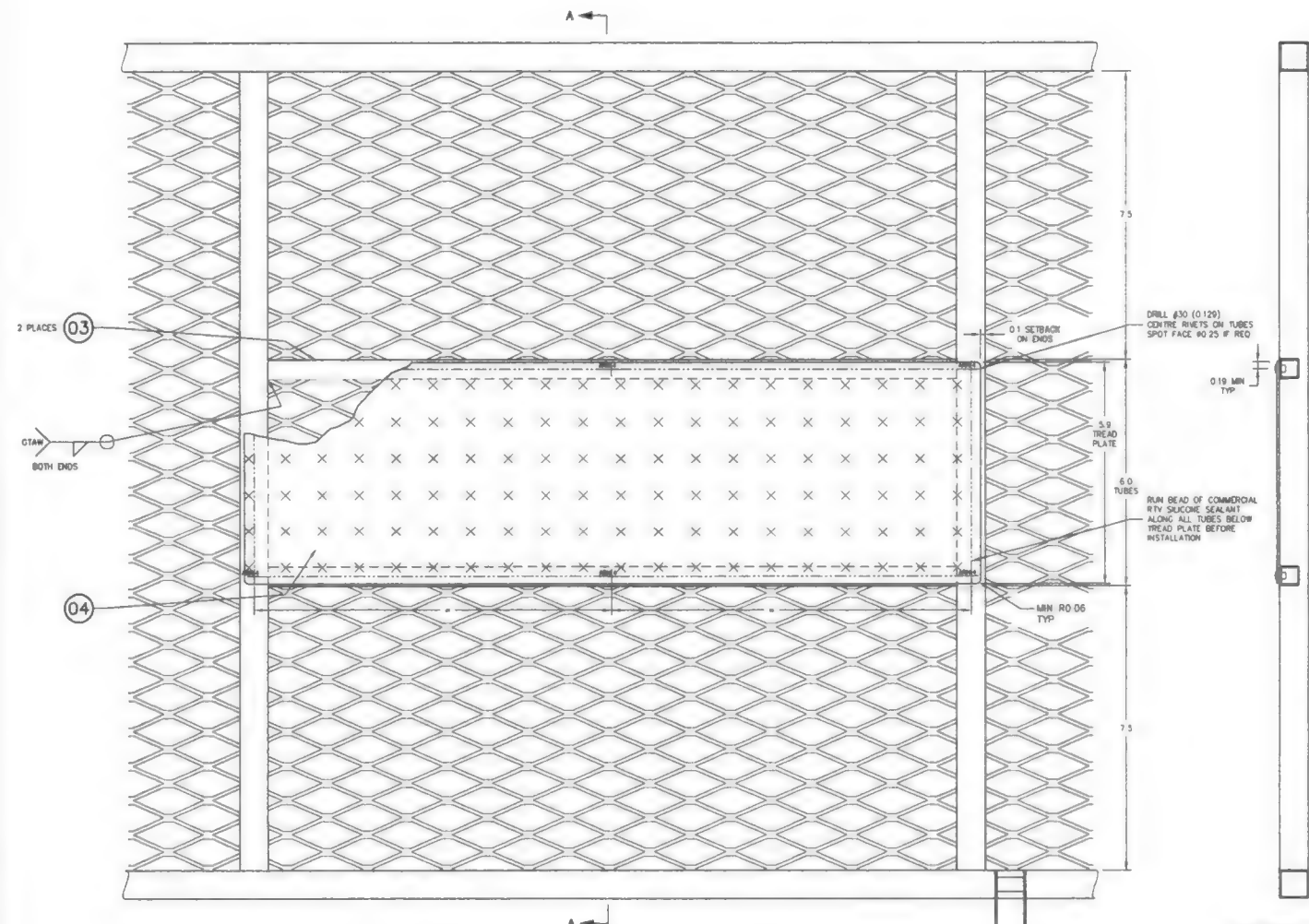
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TEL: 804.488.8376 www.aerodesign.ca

**HELICOPTER CARGO BASKET
LID HANDLE PROVISIONS ASSEMBLY**

SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A3	84263	0

2017-180



(01) BASKET LID ASSEMBLY

SECTION A-A

REV	DESCRIPTION OF CHANGE	INITIALS	DATE
1	ADD BELL MEDIUM AND EUROCOPTER AS350 BASKETS, CHANGE TUBES	BUC	MAR 19/08
2	ADD EUROCOPTER EC135, MCDONNELL DOUGLAS MD600N BELL 206B BASKETS	BUC	DEC 4/08
3	ADD NEW AS350 AND 206/407 MODELS	BUC	DEC 4/08
4	TITLE BLOCK UPDATED, MODEL LIST REMOVED, ADD ALT RIVET, ADD NOTE 7	BUC	29/05/2014

- NOTES:
- 1 THIS DRAWING IS AN OPTIONAL CONFIGURATION ADDING A TREAD PLATE STEP TO THE LID. THIS CONFIGURATION MAY BE APPLIED TO ANY OR ALL BAYS OF THE LID. REINFORCEMENT OF LID ASSEMBLY IS TO BE FABRICATED IN ACCORDANCE WITH THE APPLICABLE DRAWINGS.
 - 2 TUBES (ITEM 03) MUST BE WELDED IN PLACE BEFORE MESH IS WELDED ON BOTTOM.
 - 3 REMOVE ALL BURRS AND BREAK SHARP EDGES.
 - 4 WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AMS 2855C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.
 - 5 WHEN ASSEMBLY IS COMPLETE, FILL ALL VENT HOLES WITH ROSETTE WELD.
 - 6 THOROUGHLY CLEAN AND POWDER COAT BASKET SUB-ASSEMBLIES PRIOR TO ASSEMBLY. INSTALL TREAD PLATE AFTER POWDER COATING.
 - 7 WIDTH AND POSITION OF LID STEP MAY BE ADJUSTED TO MATCH LID DOOR INSTALLED IN ACCORDANCE WITH DRAWING 70402 ON ADJOINING BAY OF THE LID.

A/R	CR3213-4-02	BLIND RIVET	ALTERNATE	NR3213-4-02		
1	70405-04 04	TREAD PLATE	ALUMINUM	COMMERCIAL		0.063 TREAD PLATE
2	70405-03 03	TUBE	4130 STEEL COND N	MIL-T-8758		0.5 X 0.035 WALL TUBE
1	SEE NOTE 11	BASKET LID ASSEMBLY				
1	70405-01 01	BASKET LID ASSEMBLY - MODIFIED WITH STEP				
D1	PART NO	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
QTY				LIST OF MATERIALS		

BASIC CODE REF HAS 523 C=COUNTERSUNK D=DIMPLE DIGIT # OF SHEETS TO BE DIMPLED BASIC CODES BJ=MS20470AD BB=MS20428AD ARH=CR3213 ARH=CR3212	DASH NO. FOR DIAMETER H=HFD HEAD HEAR SIDE F=HFD HEAD FAR SIDE DASH NO. FOR LENGTH + INSTALL NEW RIVET + REMOVE/REPLACE RIVET - EXISTING RIVET	APPROVALS DRAWN: JEFF CLARKE 21 SEPT 2008 CHECKED: E BURCOON	DATE 21 SEPT 2008		AERO DESIGN LTD. 8888A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 884 483.2378 www.aerodesign.ca		
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1					
CARGO BASKET LID STEP MODIFICATION					SCALE 1" = 15" SHEET 1 OF 1	DWG NO A1 70405	REV 4

CARGO BASKET LID FABRICATION - COMMON**General**

These instructions apply to all cargo basket lid assemblies. Refer to the following drawings, at the current revision, for dimensions and details:

Bell 206L/407 – Right side only

69812, Revision 3 – Standard Low Mounted Basket; Extra-Wide Low Mounted Basket

94612, Revision 0 – Extra-Wide Low Mounted Ski Basket

76612, Revision 0 – High Mounted Ski Basket

Eurocopter AS350/AS355 – left or right

77612, Revision 1 – Short Basket

69812, Revision 3 – Medium Basket (left and right)

→ 78412, Revision 2 – Long Basket

94012, Revision 0 – Extra Large (ski) Basket

Robinson R44 – left or right

90612, Revision 0 – Standard Basket (left or right)

Bell 206B – right side only

80212, Revision 0 – Short Basket

80312, Revision 0 – Medium Basket

81112, Revision 0 – Long Basket

Bell 429 – right or left

95912, Revision 0 – Standard Basket

Bell Medium – left or right

75112, Revision 0 – Standard Basket

95512, Revision 0 – Extra Large (ski) Basket

MD600

82812, Revision 0 – Standard Basket

Options

→ 70405, Revision 3 – Walkway

70402, Revision 1 – Lid Door

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

Work Order: 2017-180

Date Open: 03 Nov 2017

1. Rim Assembly – Basket Lid

- Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig, 45 degree ends.
 - 1 or 2 lid prop bushing holes in short tube – refer to drawing
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.

2. Weld Rim Assembly

- Record welding rod PO on attached material list.

3. Inspection

- Rim for complete welds

4. Frame assembly – Lid

- General
 - Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing)
- Insert rim from step 2 into jig.
- Cut and fit $\frac{3}{4}$ " x 0.035 material, 21" long, for lid cross members.
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.
- Drill vent holes into rim to vent cross members into rim.
- Locate cross members in lid rim. Refer to drawing for spacing of cross members. Clamp cross members with C-clamps to jig.

5. Frame assembly – Lid with optional walkway modification

- Fit cross members to rim in accordance with step 4.
- Attach walkway jig with C-clamps. Ensure correct orientation of rim, refer to drawing.
- Cut $\frac{1}{2}$ " x 0.035 material for walkway stringers to fit between lid cross members. Record material PO on attached material list.
- Drill vent holes into cross members at walkway stringers.
- Align walkway stringers on walkway jig using cleco clamps near both ends of each stringer, and clamp stringer to jig using a C-clamp in the centre.

6. Weld frame assembly.

- Record welding rod PO on attached material list.
- Jigs must remain in place for as long as practical during welding.

7. Inspection

- Frame assembly for complete welds.

2017-18°

CARGO BASKET LID FABRICATION

Complete

8. Mesh assembly.

Note: 95912 (Bell 429) does not have mesh. Skip to step 10.

- Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- Cut mesh to size for lid.
- Remove surface rust with scotch-brite.
- Ensure lid is prepared for mesh on the correct side.

9. Weld mesh to frame assembly per drawing.

- General welding requirements for all lids:
 - Every intersection on all edges.
 - First 5 intersections along cross members, then every second intersection.
- MIG weld both short sides.
- Clamp lid over spacer at centre of lid to pre-tension mesh.
 - $\frac{3}{4}$ " for lids under 76"
 - 1" (check) for lids over 76"
- Weld remainder of mesh as indicated in a.
- Record welding rod PO on attached material list.

10. Weld lid components.

- Handle brackets, locate in accordance with drawing.
 - Standard location: $\frac{1}{4}$ " outside of last cross member on both ends.
 - Record handle bracket WO and welding rod PO on attached material list.
- Lid prop bushing(s).
 - one or two in accordance with drawing.
 - Record lip prop bushing WO and welding rod PO on attached material list.
- Placard bracket. – not installed on 95912 (Bell 429)
 - Locate on cross member to set bracket in centre bay of lid.
 - Record placard bracket WO and welding rod PO on attached material list.

11. Clean up

- Grind high spots off mesh welds.
- Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out.
- Straighten lid using frame attached under welding table. Work carefully, avoid excessive force to prevent kinking rim tubes.
- Drill #9 through lid prop bushing(s). De-burr hole(s).
- ~~Drill for lid bumpers using $\frac{1}{4}$ " (#3) centre drill.~~
 - ~~3 places for lids under 76"~~
 - ~~4 places for lids over 76"~~
- Remove surface rust with scotch-brite pad.

12. Final Inspection

To be completed by a different person than the previous steps.

- Basket lid assembly for complete welds, and required minimum mesh weld locations.
- Material lists complete.
- Overall condition and conformity to drawing(s).

2017-180

CARGO BASKET LID FABRICATION

Complete
(initial or SCA #)

13. Powder Coating

- a. Parts are to be powder coated white in accordance with commercial practices.
- b. Record powder coating PO.
- c. Inspect powder coating on receiving.
- d. Tag lid assembly and place into stock in preparation for assembly.

AD 73-04 02 AD 73-04 02 AD 73-04 02 AD 73-04 02 AD 73-04 02

Work Order: 2017-180Date Opened: 03 Nov 2017

Material Tracking Sheet
Eurocopter AS350 / AS355
Long Lid Fabrication

1 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>5</u>		78412-01	Lid Assembly		
Step 1				<i>Rim Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (93.25")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091</u>
	. 2		--	3/4" Tube - Short Rim (22.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091</u>
Step 2				<i>Weld Rim Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>17037</u>
Step 3				<i>Inspection - Rim</i>	None	
Step 4				<i>Frame Assembly</i>		
	. 4		--	3/4" Tube - Cross Member (21")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>17091</u>
Step 5		70405		<i>Option: Frame Assembly - with walkway</i>		
	. 8		--	1/2" Tube - walkway	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>17093</u>
Step 6				<i>Weld Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>17037</u>
Step 7				<i>Inspection - Frame Assembly</i>	None	
Step 8				<i>Mesh Assembly</i>		
	. 1		--	Mesh (lid - 92.5" x 22")	3/4-16F Expanded Mild Steel sheet	<u>17107</u>
Step 9				<i>Weld Mesh</i>		
	. A/R		--	Welding Rod	ER70S-6 MIG Wire	<u>16078</u>

Work Order: 207-180

Material Tracking Sheet
Eurocopter AS350 / AS355
Long Lid Fabrication

2 of 2

Date Opened: 03 Nov 2017

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 10				<i>Weld Lid Components</i>		
	. 1	84262	84262-01	Upper Handle Bracket Assembly		2017-201
	. . 4		36273-01	Lid Bracket	321 Stainless, 0.050 Sheet	
	. . 2		36275-02	Support	304 Stainless, 5/16" Rod	
	. A/R		--	Welding Rod	ER308L TIG Rod	17066
	. 2		49216-01	Spacer (Lid prop)	304 Stainless, 1/2" Dia.	2017-210
	. A/R		--	Welding Rod	ER308L TIG Rod	17066
	. 1		36204-10	Placard Bracket	1018 Steel, 0.035" Sheet	2016-119/2018-27
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	16078
Step 11				<i>Clean Up</i>		
Step 12				<i>Inspection - Final Assembly</i>		
Step 13				Powder Coating		18004 18016 18019 (1) (2) (2) Black